

## IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

### Listing of Claims:

1. (Currently Amended) A network environment supporting multiple peer-to-peer relay networks, comprising:

a main peer-to-peer relay network including all peer systems in the multiple peer-to-peer relay networks, at least one of the peer systems including at least one processor, the main peer-to-peer network having sub-networks within the main peer-to-peer relay network, wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network;

a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer systems including at least one processor, and including a first particular peer system and a second particular peer system;

a second peer-to-peer relay network including a plurality of second peer systems that are a second sub-network of the main peer-to-peer network, at least one of said second peer systems including at least one processor, and including the first particular peer system and the second particular peer system; and

wherein the first particular peer system has a connection to the second particular peer in the first peer-to-peer relay network and the first particular peer system does not have a connection to the second particular peer in the second peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network, and

~~wherein each peer independently maintains a list of available networks and a list of peers in each network.~~

2. (Original)           The network environment of claim 1, further comprising:  
a server connected to each peer system.

3.- 6. (Canceled)

7. (Currently Amended)           The network environment of claim [[5]]1, wherein:  
the peer systems in said first peer-to-peer relay network represent players in an online game.

8. (Previously Presented)           The network environment of claim 7, wherein:  
the peer systems in said first peer-to-peer relay network represent players in said online game that are on the same team.

9. (Original)           The network environment of claim 1, wherein:  
data relayed in said first peer-to-peer relay network is network service data.

10. (Original)           The network environment of claim 1, wherein:  
data relayed in said first peer-to-peer relay network is data for an online environment.

11. (Original)           The network environment of claim 10, wherein:  
data relayed in said first peer-to-peer relay network is data for a lobby environment.

12. (Previously Presented)           The network environment of claim 11, wherein:  
data relayed in said first peer-to-peer relay network is data for a chat room in said lobby  
environment.

13. (Original)           The network environment of claim 10, wherein:  
data relayed in said second peer-to-peer relay network is data for an online game.

14. (Previously Presented)           The network environment of claim 1, further  
comprising:

another peer-to-peer relay network including N3 peer systems;

wherein each peer system in said another peer-to-peer relay network is connected to a  
number of other peer systems in said another peer-to-peer relay network that is less than or equal  
to a third connection limit, said third connection limit is greater than or equal to 2, said third  
connection limit is less than or equal to N3-2, each peer system in said another peer-to-peer relay

network is configured to relay data to peer systems connected to that peer system according to a third set of one or more relay rules, and

wherein at least one peer system in said another peer-to-peer relay network is also in said first peer-to-peer relay network.

15. (Previously Presented)      The network environment of claim 14, wherein:  
none of the peer systems in said another peer-to-peer relay network are in said first peer-to-peer relay network.

16. (Original)      The network environment of claim 1, wherein:  
at least one peer system is a network-enabled game console.

17. (Original)      The network environment of claim 1, wherein:  
at least two peer systems are connected through the Internet.

18. (Currently Amended)      A method of relaying data in a peer-to-peer relay network, comprising:  
establishing a main peer-to-peer relay network including all peer systems in the peer-to-peer relay network, at least one of the peer systems including at least one processor, the main peer-to-peer network having sub-networks within the main peer-to-peer relay network, wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network;  
establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer

systems including at least one processor, and including a first particular peer system and a second particular peer system;

establishing a second peer-to-peer relay network including a plurality of second peer systems that are a second sub-network of the main peer-to-peer network, at least one of said second peer systems including at least one processor, and including the first particular peer system and the second particular peer system;

wherein the first particular peer system has a connection to the second particular peer in the first peer-to-peer relay network and the first particular peer system does not have a connection to the second particular peer in the second peer-to-peer relay network;

receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system;

selecting another peer in the first peer-to-peer relay network corresponding to said received data; and

relaying said data to the another peer system,

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network, ~~and~~

~~wherein each peer independently maintains a list of available networks and a list of peers in each network.~~

19. (Original)           The method of claim 18, wherein:

said relaying peer system is in two or more peer-to-peer relay networks, and said relaying peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said relaying peer system belongs.

20. (Original)           The method of claim 18, wherein:

said relaying peer system stores a respective connection limit and a respective set of one of more relay rules for each peer-to-peer relay network to which said relaying peer system belongs, a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.

21. (Currently Amended)           A peer system in a peer-to-peer relay network, comprising:

means for establishing a main peer-to-peer relay network including all peer systems in the peer-to-peer relay network, at least one of the peer systems including at least one processor, the main peer-to-peer network having sub-networks within the main peer-to-peer relay network, wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network;

means for establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said

first peer systems including at least one processor, and including a first particular peer system and a second particular peer system;

means for establishing a second peer-to-peer relay network including a plurality of second peer systems that are a second sub-network of the main peer-to-peer network, at least one of said second peer systems including at least one processor, and including the first particular peer system and the second particular peer system;

wherein the first particular peer system has a connection to the second particular peer in the first peer-to-peer relay network and the first particular peer system does not have a connection to the second particular peer in the second peer-to-peer relay network;

means for receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system;

means for selecting another peer in the first peer-to-peer relay network corresponding to said received data; and

means for relaying said data to the another peer system,

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network, ~~and~~

~~wherein each peer independently maintains a list of available networks and a list of peers in each network.~~

22. (Original)           The peer system of claim 21, wherein:

said peer system is in two or more peer-to-peer relay networks, and said peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said peer system belongs.

23. (Original)           The peer system of claim 21, wherein:

said peer system stores a respective connection limit and a respective set of one or more relay rules for each peer-to-peer relay network to which said peer system belongs, a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.

24. (Currently Amended)           A non-transitory computer-readable storage

medium having a computer-readable program embodied therein, said computer readable program adapted to be executed to implement a peer system in a peer-to-peer relay network, the method comprising:

establishing a main peer-to-peer relay network including all peer systems in the peer-to-peer relay network, at least one of the peer systems including at least one processor, the main peer-to-peer network having sub-networks within the main peer-to-peer relay network, wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network;

establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer



systems including at least one processor, and including a first particular peer system and a second particular peer system;

establishing a second peer-to-peer relay network including a plurality of second peer systems that are a second sub-network of the main peer-to-peer network, at least one of said second peer systems including at least one processor, and including the first particular peer system and the second particular peer system;

wherein the first particular peer system has a connection to the second particular peer in the first peer-to-peer relay network and the first particular peer system does not have a connection to the second particular peer in the second peer-to-peer relay network;

receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system;

selecting another peer in the first peer-to-peer relay network corresponding to said received data; and

relaying said data to the another peer system,

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network, and

wherein each peer independently maintains a list of available networks and a list of peers in each network.

25. (Previously Presented) The computer-readable storage medium of claim

24, wherein:

said peer system is in two or more peer-to-peer relay networks, and said peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said peer system belongs.

26. (Previously Presented) The computer-readable storage medium of claim

24, wherein:

said peer system stores a respective connection limit and a respective set of one or more relay rules for each peer-to-peer relay network to which said peer system belongs, a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.